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10/688,707	10/18/2003	Jeremy Moore	81044475	2197

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EXAMINER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

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NOTICE TO FILE CORRECTED APPLICATION PAPERS

Notice of Allowance Mailed

This application has been accorded an Allowance Date and is being prepared for issuance. The application, however, is incomplete for the reasons below.

Applicant is given 30 days from the mail date of this Notice within which to correct the informalities indicated below. A failure to reply will result in the application being ABANDONED. This period for reply is NOT extendable under 37 CFR 1.136 (a) or (b).

- Amended claims are illegible.

APPLICANT MUST SUPPLY MISSING INFORMATION WITHIN 30 DAYS OF THE MAIL DATE OF THIS NOTICE.

A copy of this notice MUST be returned with the reply. Please address response to Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

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Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (canceled)

2. (previously amended) The method of claim 3 wherein power output from the starter motor is regulated to meet existing and impending power demands by drive system auxiliary devices.

3. (previously amended) A method for reducing exhaust emissions during cold start of an internal combustion engine, the engine being coupled to a starter motor and an exhaust gas treatment device, comprising:

providing assist to the engine by the starter motor to meet a demanded power when a temperature of the exhaust gas treatment system is less than an operating temperature of the exhaust gas treatment device, and

operating the starter motor as a generator after the operating temperature of the exhaust gas treatment device has been reached.

4. (currently amended) A method for reducing exhaust emissions during cold start of an internal combustion engine, the engine being coupled to a starter motor and an exhaust gas treatment device, comprising:

providing assist to the engine by the starter motor to meet a demanded power until a temperature of the exhaust gas treatment system reaches an operating temperature of the exhaust gas treatment device; and

The method of ~~claim 6, further comprising~~ retarding spark timing of the engine.

5. (currently amended) The method of claim 16, further comprising: heating the exhaust gas treatment device by electric heater coupled to the exhaust gas treatment device.

6-7. (canceled)

8. (previously amended) The method of claim 10, further comprising: retarding spark timing of the engine

9. (previously amended) The method of claim 10, further comprising: heating the exhaust gas treatment device by electric heater coupled to the exhaust gas treatment device.

10 (currently amended) The method of claim ~~46~~, further comprising:

delaying a shifting operation of an automatic transmission coupled to the internal combustion engine.

11. (cancel)

12. (currently amended) The system of claim 164 wherein said electronic control unit causes spark timing of the engine to be retarded.

13. (currently amended) The system of claim 164 wherein said electronic control unit causes an electric heater coupled to the exhaust gas treatment device to heating the exhaust gas treatment device.

14-15. (canceled)

16. (currently amended) An engine system comprising:

an internal combustion engine;

a starter motor coupled to said engine;

an exhaust gas treatment device arranged in an engine exhaust of said engine; and

a control unit electronically coupled to said engine and said starter motor, said control unit causes said starter motor to provide power to reduce a power provided by said engine until said exhaust gas treatment device achieves an operating temperature ~~The system of claim 14~~ wherein said electronic control unit causes spark timing of the engine to be retarded.

17. (currently amended) The system of claim 164 wherein said electronic control unit causes an electric heater coupled to the exhaust gas treatment device to heating the exhaust gas treatment device.

18. (canceled)

19. (currently added) The engine system of claim 164 wherein said starter motor is an integrated starter generator.

20. (currently amended) The method of claim 46, further comprising: discontinuing providing assist by the starter motor when a temperature of the exhaust treatment device exceeds said operating temperature.

21. (currently amended) The method of claim 46 wherein said operating temperature is a temperature at which the exhaust treatment device becomes active.

22. (currently a amended) The method of claim 46 wherein said starter motor is an integrated starter generator.

23. (currently amended) The method of claim 22, further comprising: operating said integrated starter generator as a generator when a temperature of the exhaust treatment device exceeds said operating temperature.

24. (canceled)

25. (currently amended) The method of claim 274 wherein said engine supplies a lesser amount of power than otherwise because of power supplied by the starter motor when both the engine and starter motor are operating.

26. (currently amended) The method of claim 274 wherein said operating both the engine and the starter motor has both the engine and the starter motor providing mechanical power.

27. (currently amended) A method for reducing exhaust emissions during cold start of an internal combustion engine, the engine being coupled to a starter motor and an exhaust gas treatment device, comprising:

supplying rotational energy to the engine at rest by the starter motor;

providing fuel to the engine when an engine rotational speed substantially exceeds an idle speed;

continuing to operate both the engine and the starter motor after fuel is provided to the engine until the exhaust gas treatment device reaches a predetermined temperature; and

~~The method of claim 24, further comprising:~~ discontinuing operation of the starter motor when a temperature of the exhaust treatment device exceeds said predetermined temperature.

28. (previously amended) The method of claim 27 wherein said predetermined temperature is a temperature at which the exhaust treatment device becomes active.

29. (currently amended) The method of claim ~~30~~24 wherein said starter motor is an integrated starter generator.

30. (currently amended) A method for reducing exhaust emissions during cold start of an internal combustion engine, the engine being coupled to a starter motor and an exhaust gas treatment device, comprising:

supplying rotational energy to the engine at rest by the starter motor;

providing fuel to the engine when an engine rotational speed substantially exceeds an idle speed;

continuing to operate both the engine and the starter motor after fuel is provided to the engine until the exhaust gas treatment device reaches a predetermined temperature; and

~~The method of claim 29, further comprising~~ operating said ~~integrated~~ starter motor/generator as a generator when a temperature of the exhaust treatment device exceeds said predetermined temperature.

31. (previously amended) The method of claim 27 wherein when the starter motor operation is discontinued, the starter motor provides substantially no positive or negative torque.